



**Abstract:** This is a computer software architecture and method for managing data transformation, normalization, profiling, cleansing, and validation. In the preferred embodiment, the architecture and method includes seven integrated functional elements: Dispatcher to route data and metadata among system elements; Semantic Modeler to build semantic models; Model Mapper to associate related concepts between semantic models; Transformation Manager to capture transformation rules and apply them to data driven by maps between semantic models; Validation Manager to capture data constraints and apply them to data; Interactive Guides to assist the processes of semantic modeling and semantic model mapping; and Adapters to convert data to and from specialized formats and protocols.